



Sequence Listing PC22013AADO.ST25  
SEQUENCE LISTING

<110> PFIZER INC.

Naylor, Alasdair M.

Van Der Graaf, Pieter H

Wayman, Christopher P.

<120> Treatment of Male Sexual Dysfunction

<130> PC22013

<150> US 60/265,358

<151> 2001-01-31

<150> GB 0030647.2

<151> 2000-12-15

<150> GB 0108730.3

<151> 2001-04-06

<150> GB 0120679.6

<151> 2001-08-24

<150> US 09/905,846

<151> 2001-07-13

<150> US 60/291,722

<151> 2001-05-17

<150> US 09/895,367

<151> 2001-06-29

<160> 6

<170> PatentIn version 3.1

<210> 1

<211> 551

<212> DNA

<213> Homo Sapiens

<400> 1

```

accccatccg ctggetctca cccctcggag acgctcgccc gacagcatag tacttgccgc      60
ccagccacgc ccgcgcgcca gccaccatgc taggtaacaa gcgactgggg ctgtccggac      120
tgaccctcgc cctgtccctg ctcggtgtgcc tgggtgcgct ggccgaggcg taccctcca      180
agccggacaa cccgggagag gacgcaccag cggaggacat ggccagatac tactcggcgc      240
tgcgacacta catcaacctc atcaccaggc agagatatgg aaaacgatcc agcccagaga      300
cactgatttc agacctcttg atgagagaaa gcacagaaaa tgttcccaga actcggcttg      360
aagaccctgc aatgtggtga tgggaaatga gacttgctct ctggcctttt cctattttca      420
gcccatattt catcgtgtaa aacgagaatc cacccatcct accaatgcat gcagccactg      480
tgctgaattc tgcaatgttt tcctttgtca tcattgtata tatgtgtggt taaataaagt      540
atcatgcatt c                                     551

```

<210> 2

<211> 2624

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1622)..(1624)

<223> n=unknown

<300>

<301> Minth, C.D. et al.

<302> Cloning, characterization and DNA Sequence of a Human cDNA Encoding Neuropeptide Tyrosine

<303> Proc. Natl. Acad. Sci.

<304> 81

<305> 14

# Sequence Listing PC22013AAD0.ST25

<306> 4557-4581

<307> 1984

<309>

<313> (1)..(2624)

```

<400> 2
attgttcagt tcaaggggaat gaagaattca gaataatttt ggtaaattgga ttccaatatc 60
gggaataaga ataagctgaa cagttgacct gctttgaaga aacatactgt ccatttgtct 120
aaaataatct ataacaacca aaccaatcaa aatgaattca acattatttt cccagggttga 180
aaatcattca gtccactcta atttctcaga gaagaatgcc cagcttcttg cttttgaaaa 240
tgatgattgt catctgccct tggccatgat atttacctta gctcttgctt atggagctgt 300
gatcattctt ggtgtctctg gaaacctggc cttgatcata atcatcttga aacaaaagga 360
gatgagaaat gttaccaaca tcctgattgt gaacctttcc ttctcagact tgcttggtgc 420
catcatgtgt ctccccttta catttgtcta cacattaatg gaccactggg tctttggtga 480
ggcgatgtgt aagttgaatc cttttgtgca atgtgtttca atcactgtgt ccattttctc 540
tctggttctc attgctgtgg aacgacatca gctgataatc aaccctcgag ggtggagacc 600
aaataataga catgcttatg taggtattgc tgtgatttgg gtccttgctg tggcttcttc 660
tttgcctttc ctgatctacc aagtaatgac tgatgagccg ttccaaaatg taacacttga 720
tgcgtacaaa gacaaatacg tgtgctttga tcaatttcca tcggactctc ataggttgtc 780
ttataccact ctctcttggt tgctgcagta ttttggtcca ctttgtttta tattttattg 840
ctacttcaag atatatatac gcctaaaaag gagaaacaac atgatggaca agatgagaga 900
caataagtac aggtccagtg aaacccaaaag aatcaatatc atgctgctct ccattgtggt 960
agcatttgca gtctgctggc tccctcttac catctttaac actgtgtttg attggaatca 1020
tcagatcatt gctacctgca accacaatct gttattcctg ctctgccacc tcacagcaat 1080
gatatccact tgtgtcaacc ccatatttta tgggttcctg aacaaaaact tccagagaga 1140
cttgcagttc ttcttcaact tttgtgattt ccggtctcgg gatgatgatt atgaaacaat 1200
agccatgtcc acgatgcaca cagatgtttc caaaacttct ttgaagcaag caagcccagt 1260
cgcatttaaa aaaatcaaca acaatgatga taatgaaaaa atctgaaact acttatagcc 1320
tatgggtccc gatgacatct gtttaaaaac aagcacaacc tgcaacatac tttgattacc 1380
tgttctccca aggaatgggg ttgaaatcat ttgaaaatga ctaagatttt cttgtcttgc 1440
ttttttactg cttttgttgt agtgtcataa ttacatttgg aacaaaaggt gtgggctttg 1500
gggtcttctg gaaatagttt tgaccagaca tctttgaagt gctttttgtg aatttatgca 1560
tataatataa agacttttat actgtactta ttggaatgaa atttctttaa agtattacga 1620
tnnnctgact tcagaagtac ctgccatcca atacggtcat tagattgggt catcttgatt 1680

```



## Sequence Listing PC22013AAD0.ST25

agattagatt agattagatt gtcaacagat tgggccatcc ttactttatg ataggcatca	1740
ttttagtgtg ttacaatagt aacagtatgc aaaagcagca ttcaggagcc gaaagatagt	1800
cttgaagtca ttcagaagtg gtttgagggt tctgtttttt ggtgggtttt gtttggtttt	1860
tttttttttc accttaaggg aggctttcat ttcctcccga ctgattgtca cttaaatacaa	1920
aatttaaaaa tgaataaaaa gacatacttc tcagctgcaa atattatgga gaattgggca	1980
cccacaggaa tgaagagaga aagcagctcc ccaacttcaa aaccattttg gtacctgaca	2040
acaagagcat tttagagtaa ttaatttaaat aaagtaaatt agtattgctg caaatagcta	2100
aatttatattt atttgaattg atgggtcaaga gatattccat tttttttaca gactgttcag	2160
tgtttgtcaa gcttctgggtc taatatgtac tcgaaagact ttccgcttac aatttgtaga	2220
aacacaaata tcgtttttcca tacagcagtg cctatatagt gactgatttt aactttcaat	2280
gtccatcttt caaaggaagt aacaccaagg tacaatgtta aaggaatatt cactttacct	2340
agcagggaaa aatacacaaa aactgcagat acttcatata gccattttta acttgataaa	2400
actgtgtgac ttgtggcggtc ttataaataa tgcactgtaa agattactga atagttgtgt	2460
catgttaatg tgcctaattt catgtatctt gtaatcatga ttgagcctca gaatcatttg	2520
gagaaactat attttaaaaga acaagacata cttcaatgta ttatacagat aaagtattac	2580
atgtgtttga ttttaaaagg gcggacattt tattaataatc aagg	2624

&lt;210&gt; 3

&lt;211&gt; 1200

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

caagtggacc tgtactgaaa atgggtccaa taggtgcaga ggctgatgag aaccagacag	60
tggaagaaat gaaggtggaa caatacgggc cacaacaac tcctagaggt gaactgggtcc	120
ctgaccctga gccagagctt atagatagta ccaagctgat tgaggtacaa gttgtttctca	180
tattggccta ctgctccatc atcttgcttg gggtaattgg caactccttg gtgatccatg	240
tggtgatcaa attcaagagc atgcgcacag taaccaactt tttcattgcc aatctggctg	300
tggcagatct tttggtgaac actctgtgtc taccgttcac tcttacctat accttaatgg	360
gggagtggaa aatgggtcct gtcctgtgcc acctgggtgcc ctatgccag ggcctggcag	420
tacaagtatc cacaatcacc ttgacagtaa ttgccctgga ccggcacagg tgcacgtct	480
accacctaga gagcaagatc tccaagcgaa tcagcttcct gattattggc ttggcctggg	540
gcatcagtgc cctgctggca agtcccctgg ccatcttccg ggagtattcg ctgattgaga	600
tcatcccga ctttgagatt gtggcctgta ctgaaaagtg gcctggcgag gagaagagca	660
tctatggcac tgtctatagt ctttcttcct tgttgatctt gtatgttttg cctctgggca	720

Sequence Listing PC22013AAD0.ST25

ttatatcatt	ttcctacact	cgcatttggg	gtaaattgaa	gaaccatgtc	agtcctggag	780
ctgcaaata	ccactacat	cagcgaaggc	aaaaaaccac	caaaatgctg	gtgtgtgtgg	840
tgggtggtgt	tgcggtcagc	tggctgcctc	tccatgcctt	ccagcttgcc	gttgacattg	900
acagccaggt	cctggacctg	aaggagtaca	aactcatctt	cacagtgttc	cacatcatcg	960
ccatgtgctc	cacttttgcc	aatccccctt	tctatggctg	gatgaacagc	aactacagaa	1020
aggctttcct	ctcggccttc	cgctgtgagc	agcggttgga	tgccattcac	tctgaggtgt	1080
ccgtgacatt	caaggctaaa	aagaacctgg	aggtcagaaa	gaacagtggc	cccaatgact	1140
ctttcacaga	ggctaccaat	gtctaaggaa	gctgtggtgt	gaaaatgtat	ggatgaattc	1200

<210> 4

<211> 2893

<212> DNA

<213> Homo sapiens

<400> 4

ggcaccagct	cagccccaag	ccactgctct	cccattcccag	tccctggaaa	tccacccact	60
tggcccagct	caccccaact	ccaacccact	gggaccagct	ctccaggggc	ctgactgtgg	120
gcggcagcca	ctcctgagtg	agcaaagggt	cctccgcggt	gctctcccgt	ccagagccct	180
gctgatgggg	aagtccgaag	gccccgtggg	gatggtggag	agcgtggcc	gtgcagggca	240
gaagcggccg	gggttcctgg	agggggggct	gctgctgctg	ctgctgctgg	tgaccgctgc	300
cctggtggcc	ttgggtgtcc	tctacgccga	ccgcagaggg	aagcagctgc	cacgccttgc	360
tagccggctg	tgcttcttac	aggaggagag	gacctttgta	aaacgaaaac	cccagaggat	420
cccagaggcc	caagaggtga	gcgaggtctg	caccaccctt	ggctgcgtga	tagcagctgc	480
caggatcctc	cagaacatgg	acccgaccac	ggaaccgtgt	gacgacttct	accagtttgc	540
atgcggaggc	tggctgcggc	gccacgtgat	ccctgagacc	aactcaagat	acagcatctt	600
tgacgtcctc	cgcgacgagc	tggaggtcat	cctcaaagcg	gtgctggaga	attcgactgc	660
caaggaccgg	ccggctgtgg	agaaggccag	gacgctgtac	cgctcctgca	tgaaccagag	720
tgtgatagag	aagcgaggct	ctcagcccct	gctggacatc	ttggaggtgg	tgggaggctg	780
gccggtggcg	atggacaggt	ggaacgagac	cgtaggactc	gagtgggagc	tggagcggca	840
gctggcgctg	atgaactcac	agttcaacag	gcgcgtcctc	atcgacctct	tcatctggaa	900
cgacgaccag	aactccagcc	ggcacatcat	ctacatagac	cagcccacct	tgggcatgcc	960
ctcccagagag	tactacttca	acggcggcag	caaccggaag	gtgcgggaag	cctacctgca	1020
gttcatggtg	tcagtggcca	cgttgctgcg	ggaggatgca	aacctgccca	gggacagctg	1080
cctggtgcag	gaggacatgg	tgacaggtgct	ggagctggag	acacagctgg	ccaaggccac	1140
ggtaccccag	gaggagagac	acgacgtcat	cgccttgtag	caccggatgg	gactggagga	1200



## Sequence Listing PC22013AAD0.ST25

gctgcaaagc	cagtttggcc	tgaagggatt	taactggact	ctgttcatac	aaactgtgct	1260
atcctctgtc	aaaatcaagc	tgctgccaga	tgaggaagtg	gtggtctatg	gcatccccta	1320
cctgcagaac	cttgaaaaca	tcatcgacac	ctactcagcc	aggaccatac	agaactacct	1380
ggctctggcg	ctggtgctgg	accgcattgg	tagcctaagc	cagagattca	aggacacacg	1440
agtgaactac	cgcaaggcgc	tgtttggcac	aatggtggag	gaggtgctgt	ggcgtgaatg	1500
tgtgggctac	gtcaacagca	acatggagaa	cgccgtgggc	tccctctacg	tcaggagggc	1560
gttccctgga	gacagcaaga	gcatggtcag	agaactcatt	gacaagggtg	ggacagtgtt	1620
tgtggagacg	ctggacgagc	tgggctggat	ggacgaggag	tccaagaaga	aggcgcagga	1680
gaaggccatg	agcatccggg	agcagatcgg	gcaccctgac	tacatcctgg	aggagatgaa	1740
caggcgcttg	gacgaggagt	actccaatct	gaacttctca	gaggacctgt	actttgagaa	1800
cagtctgcag	aacctcaagg	tgggcgcca	gcggagcctc	aggaagcttc	gggaaaagg	1860
ggacccaaat	ctctggatca	tcggggcggc	ggtggtcaat	gcgttctact	cccaaaccg	1920
aaaccagatt	gtattccctg	ccgggatcct	ccagccccc	ttcttcagca	aggagcagcc	1980
acaggccttg	aactttggag	gcattgggat	ggtgatcggg	cacgagatca	cgcacggctt	2040
tgacgacaat	ggccggaact	tcgacaagaa	tggcaacatg	atggattggt	ggagtaactt	2100
ctccaccag	cacttccggg	agcagtcaga	gtgcatgatc	taccagtacg	gcaactactc	2160
ctgggacctg	gcagacgaac	agaacgtgaa	cggattcaac	acccttgggg	aaaacattgc	2220
tgacaacgga	ggggtgcggc	aagcctataa	ggcctacctc	aagtggatgg	cagaggggtg	2280
caaggaccag	cagctgccc	gcctggatct	cacccatgag	cagctcttct	tcatcaacta	2340
tgcccaggtg	tgggtgcggg	cctaccggcc	cgagttcgcc	atccaatcca	tcaagacaga	2400
cgtccacagt	cccctgaagt	acaggggtact	ggggtcgctg	cagaacctgg	ccgccttcgc	2460
agacacgttc	cactgtgccc	ggggcacccc	catgcacccc	aaggagcgat	gccgcgtgtg	2520
gtagccaagg	ccctgccgcg	ctgtgcggcc	cacgcccacc	tgctgctcgg	aggcatctgt	2580
gcgaagggtg	agctagcggc	gacccagtgt	acgtcccgcc	ccggccaacc	atgccaagcc	2640
tgcctgccc	gcctctgcgc	ctggcctagg	gtgcagccac	ctgcctgaca	cccagggatg	2700
agcagtgtcc	agtgcagtac	ctggaccgga	gccccctcca	cagacaccgc	cggggctcag	2760
tgcccccgtc	acagctctgt	agagacaatc	aactgtgtcc	tgccaccct	ccaagggtgca	2820
ttgtcttcca	gtatctacag	cttcagactt	gagctaagta	aatgcttcaa	agaaaaaaaa	2880
aaaaaaaaaa	aaa					2893

&lt;210&gt; 5

&lt;211&gt; 2975

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

# Sequence Listing PC22013AAD0.ST25

```

<400> 5
cagagctcgt ttagtgaacc gtcagaattt tgtaatacga ctactatag ggcggccgcg      60
aattcggcac cagctcagcc ccaagccact gctctcccat cccagtcctt ggaaatccac      120
ccacttggcc cagctcacc ccaactccaac ccactgggac ccagtctcca ggggcctgac      180
tgtgggcgcc agccactcct gagtgagcaa aggttcctcc gcggtgctct cccgtccaga      240
gccctgctga tggggaagtc cgaaggcccc gtggggatgg tggagagcgc tggccgtgca      300
gggcagaagc gcccgggggt cctggagggg gggctgctgc tgctgctgct gctggtgacc      360
gctgccctgg tggccttggg tgcctctac gccaccgca gagggaagca gctgccacgc      420
cttgctagcc ggctgtgctt cttacaggag gagaggacct ttgtaaaacg aaaaccccga      480
gggatcccag aggcccaaga ggtgagcgag gtctgcacca cccctggctg cgtgatagca      540
gctgccagga tcctccagaa catggacccg accacggaac cgtgtgacga cttctaccag      600
tttgcatgcg gaggttggt gcggcgccac gtgatccctg agaccaactc aagatacagc      660
atctttgacg tcctccgca cgagctggag gtcctctca aagcggtgct ggagaattcg      720
actgccaagg accggccggc tgtggagaag gccaggacgc tgtaccgctc ctgcatgaac      780
cagagtgtga tagagaagcg aggctctcag cccctgctgg acatcttga ggtggtggga      840
ggctggccgg tggcgatgga caggtggaac gagaccgtag gactcgagtg ggagctggag      900
cggcagctgg cgctgatgaa ctcacagttc aacaggcgcg tcctcatcga cctcttcac      960
tggaacgacg accagaactc cagccggcac atcatctaca tagaccagcc caccttgggc     1020
atgccctccc gagagtacta cttcaacggc ggcagcaacc ggaagggtgcg ggaagcctac     1080
ctgcagttca tgggtgtcagt ggccacgttg ctgcgggagg atgcaaactc gcccagggac     1140
agctgcctgg tgcaggagga catggtgcag gtgctggagc tggagacaca gctggccaag     1200
gccacggtac cccaggagga gagacacgac gtcatgcctt tgtaccaccg gatgggactg     1260
gaggagctgc aaagccagtt tggcctgaag ggatttaact ggactctgtt catacaaact     1320
gtgctatcct ctgtcaaat caagctgctg ccagatgagg aagtgggtgt ctatggcatc     1380
ccctacctgc agaaccttga aaacatcatc gacacctact cagccaggac catacagaac     1440
tacctggtct ggcgcctggt gctggaccgc attggtagcc taagccagag attcaaggac     1500
acacgagtga actaccgcaa ggcgtgttt ggcacaatgg tggaggaggt gcgctggcgt     1560
gaatgtgtgg gctacgtcaa cagcaacatg gagaacgccg tgggctccct ctacgtcagg     1620
gaggcgttcc ctggagacag caagagcatg gtcagagaac tcattgacaa ggtgcggaca     1680
gtgtttgtgg agacgctgga cgagctgggc tggatggacg aggagtccaa gaagaaggcg     1740
caggagaagg ccatgagcat ccgggagcag atcgggcacc ctgactacat cctggaggag     1800
atgaacaggc gcctggacga ggagtactcc aatctgaact tctcagagga cctgtacttt     1860
gagaacagtc tgcagaacct caaggtgggc gcccagcgga gcctcaggaa gcttcgggaa     1920
aagggtggacc caaatctctg gatcatcggg gcggcggtgg tcaatgcgtt ctactcccca     1980

```



Sequence Listing PC22013AAD0.ST25

aaccgaaacc agattgtatt ccctgccggg atcctccagc ccccttctt cagcaaggag 2040  
cagccacagg ccttgaactt tggaggcatt gggatggtga tcgggcacga gatcacgcac 2100  
ggctttgacg acaatggccg gaacttcgac aagaatggca acatgatgga ttggtggagt 2160  
aactttctcca cccagcactt ccggggagcag tcagagtgca tgatctacca gtacggcaac 2220  
tactcctggg acctggcaga cgaacagaac gtgaacggat tcaacaccct tggggaaaac 2280  
attgctgaca acggaggggt gcggcaagcc tataaggcct acctcaagtg gatggcagag 2340  
ggtggcaagg accagcagct gcccggcctg gatctcacc atgagcagct cttcttcac 2400  
aactatgccc aggtgtggtg cgggtcctac cggcccgagt tcgcatcca atccatcaag 2460  
acagacgtcc acagtcccct gaagtacagg gtactggggt cgctgcagaa cctggccgcc 2520  
ttcgagaca cgttccactg tgcccggggc acccccatgc accccaagga gcgatgccgc 2580  
gtgtggtagc caaggccctg ccgcgctgtg cggccacgc ccacctgctg ctcggaggca 2640  
tctgtgcgaa ggtgcagcta gcggcgaccc agtgtacgtc ccgccccggc caaccatgcc 2700  
aagcctgcct gccaggcctc tgcgcctggc ctaggggtgca gccacctgcc tgacaccag 2760  
ggatgagcag tgtccagtgc agtacctgga ccggagcccc ctccacagac acccgcgggg 2820  
ctcagtgccc ccgtcacagc tctgtagaga caatcaactg tgtcctgccc accctccaag 2880  
gtgcattgtc ttccagtatc tacagcttca gacttgagct aagtaaagtc ttcaaagaaa 2940  
aaaaaaaaa aaaaaaaact cgactctaga ttgcg 2975

<210> 6

<211> 779

<212> PRT

<213> Homo sapiens

<400> 6

Met Gly Lys Ser Glu Gly Pro Val Gly Met Val Glu Ser Ala Gly Arg  
1 5 10 15

Ala Gly Gln Lys Arg Pro Gly Phe Leu Glu Gly Gly Leu Leu Leu Leu  
20 25 30

Leu Leu Leu Val Thr Ala Ala Leu Val Ala Leu Gly Val Leu Tyr Ala  
35 40 45

Asp Arg Arg Gly Lys Gln Leu Pro Arg Leu Ala Ser Arg Leu Cys Phe  
50 55 60

Leu Gln Glu Glu Arg Thr Phe Val Lys Arg Lys Pro Arg Gly Ile Pro  
65 70 75 80

Glu Ala Gln Glu Val Ser Glu Val Cys Thr Thr Pro Gly Cys Val Ile

Sequence Listing PC22013AAD0.ST25

85

90

95

Ala Ala Ala Arg Ile Leu Gln Asn Met Asp Pro Thr Thr Glu Pro Cys  
100 105 110

Asp Asp Phe Tyr Gln Phe Ala Cys Gly Gly Trp Leu Arg Arg His Val  
115 120 125

Ile Pro Glu Thr Asn Ser Arg Tyr Ser Ile Phe Asp Val Leu Arg Asp  
130 135 140

Glu Leu Glu Val Ile Leu Lys Ala Val Leu Glu Asn Ser Thr Ala Lys  
145 150 155 160

Asp Arg Pro Ala Val Glu Lys Ala Arg Thr Leu Tyr Arg Ser Cys Met  
165 170 175

Asn Gln Ser Val Ile Glu Lys Arg Gly Ser Gln Pro Leu Leu Asp Ile  
180 185 190

Leu Glu Val Val Gly Gly Trp Pro Val Ala Met Asp Arg Trp Asn Glu  
195 200 205

Thr Val Gly Leu Glu Trp Glu Leu Glu Arg Gln Leu Ala Leu Met Asn  
210 215 220

Ser Gln Phe Asn Arg Arg Val Leu Ile Asp Leu Phe Ile Trp Asn Asp  
225 230 235 240

Asp Gln Asn Ser Ser Arg His Ile Ile Tyr Ile Asp Gln Pro Thr Leu  
245 250 255

Gly Met Pro Ser Arg Glu Tyr Tyr Phe Asn Gly Gly Ser Asn Arg Lys  
260 265 270

Val Arg Glu Ala Tyr Leu Gln Phe Met Val Ser Val Ala Thr Leu Leu  
275 280 285

Arg Glu Asp Ala Asn Leu Pro Arg Asp Ser Cys Leu Val Gln Glu Asp  
290 295 300

Met Val Gln Val Leu Glu Leu Glu Thr Gln Leu Ala Lys Ala Thr Val  
305 310 315 320

Pro Gln Glu Glu Arg His Asp Val Ile Ala Leu Tyr His Arg Met Gly  
325 330 335

Leu Glu Glu Leu Gln Ser Gln Phe Gly Leu Lys Gly Phe Asn Trp Thr  
340 345 350

Leu Phe Ile Gln Thr Val Leu Ser Ser Val Lys Ile Lys Leu Leu Pro

Sequence Listing PC22013AADO.ST25

355

360

365

Asp Glu Glu Val Val Val Tyr Gly Ile Pro Tyr Leu Gln Asn Leu Glu  
370 375 380

Asn Ile Ile Asp Thr Tyr Ser Ala Arg Thr Ile Gln Asn Tyr Leu Val  
385 390 395 400

Trp Arg Leu Val Leu Asp Arg Ile Gly Ser Leu Ser Gln Arg Phe Lys  
405 410 415

Asp Thr Arg Val Asn Tyr Arg Lys Ala Leu Phe Gly Thr Met Val Glu  
420 425 430

Glu Val Arg Trp Arg Glu Cys Val Gly Tyr Val Asn Ser Asn Met Glu  
435 440 445

Asn Ala Val Gly Ser Leu Tyr Val Arg Glu Ala Phe Pro Gly Asp Ser  
450 455 460

Lys Ser Met Val Arg Glu Leu Ile Asp Lys Val Arg Thr Val Phe Val  
465 470 475 480

Glu Thr Leu Asp Glu Leu Gly Trp Met Asp Glu Glu Ser Lys Lys Lys  
485 490 495

Ala Gln Glu Lys Ala Met Ser Ile Arg Glu Gln Ile Gly His Pro Asp  
500 505 510

Tyr Ile Leu Glu Glu Met Asn Arg Arg Leu Asp Glu Glu Tyr Ser Asn  
515 520 525

Leu Asn Phe Ser Glu Asp Leu Tyr Phe Glu Asn Ser Leu Gln Asn Leu  
530 535 540

Lys Val Gly Ala Gln Arg Ser Leu Arg Lys Leu Arg Glu Lys Val Asp  
545 550 555 560

Pro Asn Leu Trp Ile Ile Gly Ala Ala Val Val Asn Ala Phe Tyr Ser  
565 570 575

Pro Asn Arg Asn Gln Ile Val Phe Pro Ala Gly Ile Leu Gln Pro Pro  
580 585 590

Phe Phe Ser Lys Glu Gln Pro Gln Ala Leu Asn Phe Gly Gly Ile Gly  
595 600 605

Met Val Ile Gly His Glu Ile Thr His Gly Phe Asp Asp Asn Gly Arg  
610 615 620

Asn Phe Asp Lys Asn Gly Asn Met Met Asp Trp Trp Ser Asn Phe Ser  
Page 10

Sequence alignment of the 12015AAB0.3125 protein (625-640) with the 12015AAB0.3125 protein (630-640)																
Thr	Gln	His	Phe	Arg 645	Glu	Gln	Ser	Glu	Cys 650	Met	Ile	Tyr	Gln	Tyr 655	Gly	
Asn	Tyr	Ser	Trp 660	Asp	Leu	Ala	Asp	Glu 665	Gln	Asn	Val	Asn	Gly 670	Phe	Asn	
Thr	Leu	Gly 675	Glu	Asn	Ile	Ala	Asp 680	Asn	Gly	Gly	Val	Arg 685	Gln	Ala	Tyr	
Lys	Ala 690	Tyr	Leu	Lys	Trp	Met 695	Ala	Glu	Gly	Gly	Lys 700	Asp	Gln	Gln	Leu	
Pro 705	Gly	Leu	Asp	Leu	Thr 710	His	Glu	Gln	Leu	Phe 715	Phe	Ile	Asn	Tyr	Ala 720	
Gln	Val	Trp	Cys	Gly 725	Ser	Tyr	Arg	Pro	Glu 730	Phe	Ala	Ile	Gln	Ser 735	Ile	
Lys	Thr	Asp	Val 740	His	Ser	Pro	Leu	Lys 745	Tyr	Arg	Val	Leu	Gly 750	Ser	Leu	
Gln	Asn	Leu 755	Ala	Ala	Phe	Ala	Asp 760	Thr	Phe	His	Cys	Ala 765	Arg	Gly	Thr	
Pro	Met 770	His	Pro	Lys	Glu	Arg 775	Cys	Arg	Val	Trp						